

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

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(PCT Article 36 and Rule 70)

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|--|--|---|----------------------|
| Applicant's or agent's file reference H2346 PCT | FOR FURTHER ACTION | | See Form PCT/IPEA416 |
| International application No. PCT/EP2004/008201 | International filing date (day/month/year) 22.07.2004 | Priority date (day/month/year) 24.07.2003 | |
| International Patent Classification (IPC) or national classification and IPC G02C7/02, G02C7/04, A61F9/00 | | | |
| Applicant TECHNOVISION GMBH GESELLSCHAFT FÜR DIE ...et al. | | | |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> | | | |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input checked="" type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p> | | | |
| Date of submission of the demand 02.02.2005 | | Date of completion of this report 04.07.2005 | |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | | Authorized Officer Telephone No. +49 89 2399-  | |

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**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/008201

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-29 as originally filed

Claims, Numbers

1-64 as originally filed

Drawings, Sheets

1/30-30/30 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. IV Lack of unity of invention

1. ☒ In response to the invitation to restrict or pay additional fees, the applicant has:
- ☐ restricted the claims.
 - ☒ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ neither restricted nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with.
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
 - ☐ the parts relating to claims Nos. .

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|---|
| Novelty (N) | Yes: Claims | 2,3,6,7,9,14-20, 30,32,33,39-41,43,44,55-64 |
| | No: Claims | 1,4,5,8,10-13,21-29,31,34-38,42,45-54 |
| Inventive step (IS) | Yes: Claims | 2,3,6,7,9,14-20, 30,32,33,39-41,43,44,55-64 |
| | No: Claims | 1,4,5,8,10-13,21-29,31,34-38,42,45-54 |
| Industrial applicability (IA) | Yes: Claims | 1-64 |
| | No: Claims | |

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item IV.

The separate groups of inventions are:

1. Claims 1-20
A marked contact lens, which is not vision impairing.
2. Claims 21-54
A method for evaluating the position of a marked contact lens in the patients eye.
3. Claims 55-64
Method for determining pupil parameters.

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

The common special technical feature in groups 1 and 2 is a marked contact lens. Such a contact lens is disclosed for example in document EP 0 949 528 (see column 8, paragraph 32).

The problems solved by both groups are also different, namely, providing a marked contact lens, which does not impair the vision of the user and providing a method to evaluate the movement of the lens in the eye.

The common special technical feature in groups 1 and 3 does not exist. The problems solved are obviously different as well.

The common special technical feature in groups 2 and 3 is the step of determining the center of the pupil of the patient. Such a step is disclosed for example in document EP 0 949 528 (see column 9, lines 20-26).

The problems solved by both groups are also different, namely, providing a method to evaluate the movement of the lens in the eye and providing a method to determine pupil parameters of an eye.

Therefore, the three groups of inventions cannot be considered to have a common single general inventive concept. As a consequence, claim groups 1, 2 and 3 are non unitary according to Rule 13.1 and 13.2 PCT.

Re Item V.

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

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1. The following documents are referred to in this communication:
D1 : EP 0 949 528 A (MENICON CO LTD) 13 October 1999 (1999-10-13)
D2: DE 102 41 210 A (TECHNOVISION GMBH GES FUER DIE) 25 March 2004
(2004-03-25)

2. **INDEPENDENT CLAIM 1 (1st group of inventions)**

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
Document D1 discloses (the references in parenthesis applying to this document):

A contact lens (abstract), comprising:
a surface including a plurality of marks in an optical zone region of the lens (column 8, lines 17-21), wherein the marks are light absorbing or light scattering with respect to light propagating in a posterior to anterior lens surface direction (it is understood that the index provided on the lens will absorb light in both directions if its a dyed mark or scatter it if has been done with a laser or a cutter, c.f. column 9, lines 24-27), wherein the marks are non-vision impairing with the lens in-vivo (column 9, lines 29-31).

3. **DEPENDENT CLAIMS 4, 5, 8, 10-13**

Dependent claims 4, 5, 8, 10-13 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step (Article 33(2) and (3) PCT).

4. **DEPENDENT CLAIMS 2, 3, 6, 7, 9, 14-20**

The combination of the features of dependent claims 2, 3, 6, 7, 9, 14-20 are neither known from, nor rendered obvious by, the available prior art.

5. **INDEPENDENT CLAIMS 21, 29 and 45 (2nd group of inventions)**

- 5.1 Although the present application claims priority of the german DE 10333794, this priority claim does not seem to hold for the following reason.

The applicant is reminded that only the date of filling of the "first application"

can be claimed as a priority (Article 8 PCT). It seems however that in the present case, the subject-matter of independent claim 21 of the present invention is already contained in earlier german application DE 102 41 210 filed on September, 5th 2002, later published as DE 102 41 210 (D2) and disclosing (the references in parentheses applying to this document):

A method for making a contact lens measurement in vivo (paragraph 11), comprising:

- providing a selectively marked contact lens in vivo (paragraphs 16, 21);
- obtaining an image of said lens in vivo (paragraph 27)
- determining a pupil coordinate parameter (paragraphs 19, 33)
- calculating a position and/or orientation coordinate parameter of the contact lens for each image with respect to the pupil coordinate parameter (paragraph 18); and
- repeating steps (a-d) at a repetition rate greater than about 10 Hz over a selected time interval (paragraphs 35, 27, 82).

Accordingly the claim to priority is not valid in respect of the subject-matter already contained in the earlier DE application 102 41 210. As a consequence of the non valid priority, document D2 published on March 25th, 2004 (before the filing of the present application) forms part of the state of the art in the sense of Rule 33(1) PCT. Hence the subject-matter of claim 21 is not new in the sense of Article 33(2) PCT.

5.2 The same reasoning applies mutatis-mutandis to claims 29 and 45. Hence the subject-matter of these claims is not new in the sense of Article 33(2) PCT.

6. DEPENDENT CLAIMS 22-28, 31, 34-38, 42, 46-54

Dependent claims 22-28, 31, 34-38, 42, 46-54 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step (Article 33(2) and (3) PCT).

7. DEPENDENT CLAIMS 30, 32, 33, 39-41, 43, 44

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The combination of the features of dependent claims 30, 32, 33, 39-41, 43, 44 are neither known from, nor rendered obvious by, the available prior art.

8. INDEPENDENT CLAIM 55 and DEPENDENT CLAIMS 56-64

The combination of the features of claims 55-64 are neither known from, nor rendered obvious by, the available prior art.